Rural Telecommunications:
Connecting to the Problem

A report by the Assembly Select Committee on Rural Economic Development
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Executive Summary

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In an ongoing effort to understand the problems rural communities face in achieving economic prosperity, the Select Committee on Rural Economic Development has identified the lack of an adequate telecommunications infrastructure as one of the roadblocks to economic opportunity in rural California. Technology is at the core of our nation's current economic boom, yet rural economies remain stagnant, unable to compensate for the loss of traditional employment in the resource and agriculture sectors.

This report summarizes the testimony given at a hearing on rural telecommunications held in Crescent City, California on November 29, 1999. Jointly sponsored by the Assembly Select Committee on Rural Economic Development, chaired by Assemblymember Virginia Strom-Martin and the Assembly Committee on Utilities and Commerce, chaired by Assemblymember Roderick D. Wright, the hearing featured testimony from rural residents, business and community leaders, and telecommunications industry representatives, as well as representatives from the Bureau of State Audits and the Public Utilities Commission (PUC). Witnesses were invited to describe their experiences in accessing telecommunications equipment, either for their residence or business, or to discuss their firm's plans for improving service delivery to the region.

Much of the testimony focused on the problems encountered in bringing telecommunications infrastructure to remote communities, including the challenges created by geography, demographics, cost, and regulations. Some of the witnesses discussed their community's need for ever-expanding technologies that would enhance business and educational opportunities, while others described the efforts already underway to enhance service to remote locations.

In studying the rural telecommunications issue, the Select Committee on Rural Economic Development made the following findings:

- Expanded Internet capability increases a rural community's access to business and educational opportunities. Rural communities view the Internet as a means to employment and economic growth.
- Rural communities need an open dialogue with their telecommunications providers in order to convey the community's interests in service levels.
- Telecommunications regulators face a dilemma in their efforts to provide affordable, state-of-the art telecommunications service to consumers while promoting a competitive market place.
- Deregulation of the telecommunications industry has limited the PUC's ability to control how services are delivered to customers.

- The lack of telecommunications infrastructure in rural areas creates an anti-competitive situation, undermining the basic intent of the 1996 Federal Telecommunications Act.
- Economics, not technology, dictate the availability and level of service in rural areas. Where money is no issue, rural residents are able to pay for any level of service desired. In communities with a low wage base, few are able to afford the new technologies that might be available to them.
- The PUC's system of tariffs and boundary exchanges do not allow the flexibility needed to promote a competitive market in rural areas.
- Current strategies for subsidizing service to low-income customers require some support from urban ratepayers.
- Understanding the potential impacts of rate de-averaging on rural customers will not be possible without further study by the PUC.
- Little or no data is available on the actual numbers of rural residents without telecommunications service.
- Rural communities do have access to alternative, wireless technologies, such as radiotelephones and cellular service, but these technologies are not reliable in mountainous terrain or stormy conditions, or are not universally available.
- The PUC's current fee structure for extending telephone lines into unserved areas often makes such extensions unaffordable to rural residents.
- Outside financing, such as block grants and in-kind corporate contributions, are available to help communities pay the cost of installing telecommunications infrastructure.
- Telephones are not generally considered to be a luxury in 21st century America, yet there is no State program in place to help remote communities obtain the necessary infrastructure to have telephone service.
- The high tech industry moves approximately one business per day from the United States to a foreign country, overlooking the opportunities presented by rural communities where there are both an eager workforce and broad development opportunities.

These and other findings are detailed in the attached report, entitled *Rural Telecommunications: Connecting to the Problem*. Through the following summaries of witness testimony, the Select Committee on Rural Economic Development hopes to convey the breadth of the telecommunications imbalance in rural California, and the varied perceptions of this issue, which is supported by a lack of clear and coherent data.

It is the hope of the Select Committee members, and of Chairwoman Strom-Martin, that this report will inspire a commitment from the Legislature to understand this issue more fully, while at the same time seeking a remedy that can bring California's rural population the same prosperity enjoyed by the rest of the state.

Introduction

Introduction

With the year 2000 upon us, America is well into a new era of technological opportunities. With a cell phone in almost every car and computers in nearly every household, our dependence upon technology is without question. The explosion of the Internet has created vast educational and entrepreneurial opportunities that have changed our approach to learning, to daily commerce, and to employment. The Internet has opened communications across state lines and across oceans, expanding both our connections to the rest of the world and our opportunities for entrepreneurship. California has led this movement from its urban centers, with Silicon Valley virtually designing the technological route the rest of the world has taken.

In spite of this phenomenal credential, California also has many residents who have been excluded from the technological boom. Rural communities throughout the state are clamoring for such basic technology as hard line telephone service that would provide them with reliable, state-of-the art telecommunications service and rudimentary access to the Internet. Many remote residents must rely on radiophones or cellular service, which is inefficient in mountainous terrain and stormy weather, making basic communications and emergency contacts difficult, at best.

Some will argue that the most remote rural residents moved to these areas knowing there would be no telephone service and therefore they have no basis for complaint. That argument ignores the sociologic and economic changes that have taken place in many rural communities, where closures of the timber and fishing industries have stripped residents of their ability to earn a living. While the rugged individualist may once have gone "back to nature" to make his or her mark, today that rugged individual may find a niche in the world of the Internet, which enables a person to run a business or obtain an advanced degree, all from the comfort of his or her own home. As families grow and children move away, an aging rural population has also become more aware of the need for connection to family and healthcare providers. For schools without Internet access, students must be bused long distances in order to receive the computer experience that will one day help them to be able to compete for jobs.

In rural communities that seek to improve their economic base, technology promises vast opportunities for higher education, for training and employment, yet limited infrastructure holds them back. With minimal infrastructure, educational access is severely limited and the potential for new technology business development is impaired. Both geography and expense make expanding the telecommunications infrastructure in rural communities more difficult. Rural residents may not be able to afford the high cost of installing the equipment that would bring their communities up to date, and with limited tax revenues, local governments are rarely able to help.

These and other issues were addressed at a joint hearing of the Assembly Select Committee on Rural Economic Development and the Assembly Committee on Utilities in and Commerce on November 29, 1999. Held in Crescent City, in California's northern-most coastal county of Del Norte, committee members heard the testimony of rural residents seeking access to telephone and Internet service, from economic developers and educators hoping to improve their communities' prospects through new technologies, and from telecommunications industry representatives and regulators trying to balance the goals of meeting customers' changing needs and providing affordable, reliable service.

The hearing also featured a presentation by the Bureau of State Audits following the November 1999 release of its survey of rural telecommunications. Conducted at the request of Assemblymember Strom-Martin and the Joint Legislative Audit Committee, the study compared the level of telecommunications service available in rural and urban areas and attempted to evaluate cost differences between the two. The study also attempted to evaluate the potential impact of de-averaging the cost of service to rural areas, and outlined the complicated task the Public Utilities Commission will have to accomplish changes in telecommunications rates.

The following summarizes the testimony presented at the Rural Telecommunications hearing and offers findings and recommendations. Additional written comments are included in the Appendix at the back of this report.

It is the hope of the Select Committee on Rural Economic Development that this information will provide the momentum for changes in telecommunications policy that will open technology access to all California residents.

Overview of Telecommunications Policy

Overview of Telecommunications Policy
Mr. JACK LEUTZA, *Director, Telecommunications Division, CPUC*

Describing the challenges of providing telecommunications services to such a diverse state, Mr. Leutza said the Public Utilities Commission's (PUC) struggled to provide a balance in the availability of resources around the state. He said geography isolates certain parts of the state, restricting what is available to many residents. The PUC is confronted by questions such as whether or not service to remote areas should be subsidized by urban ratepayers and how can a competitive market be maintained while providing service to all potential customers?

With the 1984 break-up of the stable "Ma Bell" monopoly, a range of new telecommunications services became available, Mr. Leutza explained. Currently more than 100 local exchange carriers serve California.

Mr. Leutza described the PUC's mandate to provide universal service, which he said had been easier to provide under the former, regulated monopolistic system. He said deregulation of the industry limited the PUC's control over services, but that the Commission did offer incentives to encourage providers to expand services into new markets.

Mr. Leutza outlined the Commission's other programs, including Universal Services, High Cost Fund subsidies, and the Education and Library Discount Fund that is available to schools and libraries.

Bureau of State Audits Rural Telecommunications Study
Ms. CATHERINE BRADY, *Auditor Principal, Bureau of State Audits*

Ms. Brady described the Bureau of State Audits' November 1999 study of rural telecommunications, which focused on the potential impacts of rate de-averaging and the quality of rural services.

Currently in California, the cost of providing telephone service is averaged between urban and rural customers, in order to allow rural customers to have affordable telephone service. Under the 1996 federal Telecommunications Act, states must end the practice of averaging (or de-average rates) to allow competing telecommunications providers the opportunity to break into the market.

Ms. Brady said the practice of de-averaging should have no immediate impact. She explained the practice would begin with wholesale providers, rather than the retail service offered to individual residences and businesses. Changes in residential rates could take anywhere from 18 months to six years, depending upon the amount of study the Public Utilities Commission would require prior to implementation, and the magnitude of the rate change could not be determined.

Ms. Brady added that in reviewing the effects of de-averaging on competition and the level of service, the Bureau was forced to establish its own definition of rural. Settling on an average of fewer than 1,000 persons per square mile, the Bureau found that service by the state's 22 telecommunications providers was the same throughout the state. She said no data was available on the state's unserved residents (persons living in unfiled territories or those residing in filed territories without service), but by overlaying census maps with maps of telecommunication provider service boundaries, the Bureau determined that only about four percent of California residents lack telephone service.

The Bureau's survey of telecommunications equipment revealed that equivalent levels of technology appear to be available in all parts of the state, and rural residents have the same access to advanced technologies as do urban residents. Ms. Brady said service levels were dictated by customer demand throughout the state, and that due to special funding opportunities, many rural residents actually have newer telecommunications technology than their urban counterparts.

The Problem: Communities in need of hard-line service

Telecommunications on the Smith River, Del Norte County
Mr. CHUCK BLACKBURN, *Supervisor, Del Norte County*

Mr. Blackburn described the difficulties of receiving telecommunications service at his residence at Big Flat, along the Smith River near the Northern California border. The area is 15 miles from the nearest General Telephone and Electric (GTE) and Pacific Bell lines, across rugged, mountainous terrain. Other area residents include the Bar-O Boys' Ranch, for troubled youth, and the Idyllwild CalTrans maintenance station that is crucial to highway travel on State Route 199.

Mr. Blackburn said area residents relied on radio telephones for communication, but he said the service was anything but private, utilizing a combination or radio repeaters and lines to convey communication signals. He said cellular telephones were inadequate for use in the region, but added that a microwave system upgrade, scheduled for sometime in 2000, promised some improvement.

Mr. Blackburn said communication from the area was sporadic and often interrupted by weather and other problems. Both the Bar-O and the CalTrans station had a clear need for the dependability and reliability provided by hard line telephone service. Mr. Blackburn noted that telecommunications technology should be made available to those areas where it is needed and wanted.

Bringing telephone service to tribal communities
Mr. SEF MURGIA, *Planning Director, Yurok Tribe*

Mr. Murgia noted that the experiences of the Yurok Tribe were similar to that of other rural communities. The lack of infrastructure created an impediment to further development, as well as presented public safety problems.

The Yurok Nation is in northern Humboldt County, located along the Klamath River. The two main tribal communities, Klamath and Weitchpec, are located on opposite sides of the Yurok Reservation, connected by rugged, mountain roads.

As planning director for the tribe, Mr. Murgia noted that the Yurok had an ambitious development plan for the 47 miles of Klamath River frontage under tribal ownership. The region already had two elementary schools, a health clinic, and tribal office, but had no telephones and no power to many parts of the reservation.

In 1996 the Yurok Tribe decided to build its own base telecommunications system. The estimated cost of providing service to 200 households in the area was projected at $1.5 million. The effort was scaled back to provide service only to the tribal governmental offices. The technology used included microwave repeaters utilizing solar power to provide basic telephone service with minimal computer access. The tribe was currently in the process of adding public telephones to complete the first phase of the project.

Mr. Murgia said the community's need for telecommunications was great. The community of Weitchpec, at the far eastern edge of the reservation, was completely without telephone service, and both schools were in need of Internet access.

The problem with telecommunications infrastructure was an economics of scale, Mr. Murgia said. The cost of providing service to every home would be too great, yet residents still need and want the service.

The economic and safety issues surrounding rural access
Mr. ROBERT REISS, *Supervisor, Trinity County*

Mr. Reiss described the situation in remote Trinity County, a mountainous region between Interstate 5 and Humboldt County. Following the reduction in timber-related jobs in the 1980s, Mr. Reiss said many Trinity residents were struggling to enhance employment opportunities for area residents. Their efforts were hindered by a lack of telephones, making it difficult for both entrepreneurs and job seekers to connect with opportunities.

The Internet opportunities that would be available over hard wire telephone lines were attractive to remote residents, offering the promise of jobs, services, and shopping, but bringing hard lines to remote regions would be too costly, he explained. One-third of Trinity's 13,500 residents had no telephone service. This shortfall impacted a range of services that included volunteer fire and other emergency services, welfare services as well as business and economic development opportunities in the region.

Mr. Reiss said rural areas were being excluded from basic services. Telephones were not considered a luxury item, he noted, and asked why then were many rural communities still without service? Even cellular service was minimal in the county, partly due to a lack of repeaters, which resulted in few cellular subscribers.

While many in California assumed that telephone service was universally available, Trinity County offered a reality check. Mr. Reiss urged the Public Utilities Commission to work with the county to bring up-to-date service into the region.

Residing beyond the exchange boundary
Mr. FRED WOOLLEY*, Yorkville resident, Mendocino County*

Mr. Woolley said the undependable nature of wireless telecommunications in remote areas prompted him to run his own hard line, known as a "farmer's line," to provide telephone service for himself and his neighbors. Following the installation and connection of his residence, Mr. Woolley was notified that he resided in "unfiled territory."

Under the Public Utilities Commission rules, telecommunications providers must file to serve a defined geographic region before persons residing in an area will receive service. Mr. Woolley was one of an unknown number of people living in regions where no provider has filed, leaving those residents without a telecommunications provider.

Following negotiations with the telecommunications provider serving the nearby community of Yorkville, in Mendocino County it was agreed that the company would provide limited service to Mr. Woolley's residence. The limitations were substantial, according to Mr. Woolley, and included:

- no changes or future expansion of his service;
- permanent discontinuation if his service was discontinued or his property sold, and
- no additional connections for adjacent property owners.

Although Mr. Woolley said he understood the tariff act provisions that restrict the delivery of telephone service, he believed rural residents should be allowed to receive full telephone services if they are willing and able to provide their own telecommunications infrastructure.

A community's struggle for phone service
Mr. KEITH RASHALL, *Whale Gulch resident, Mendocino County*

Mr. Rashall described the lengthy process the residents of Whale Gulch, in north western Mendocino County, had undergone in an effort to bring telephone service into their community. In spite of the fact that the community was home to 50 families and a public K-12 school, by early 1988 the residents had abandoned their long-running effort to bring telephones into the area. The effort was revived in June of that year with the goal of bringing a two-mile line extension into Whale Gulch.

Mr. Rashall expressed disappointment in the telecommunications bureaucracy that had required nine months of effort just to get the community's telephone orders into the system. He described difficulties in establishing communications with a point person within the region's telephone carrier.

While the northern end of Whale Gulch, in Humboldt County, had telephone service, the southern end of the gulch was served only by limited wireless technology. Mr. Rashall said in looking to the future, Whale Gulch residents wanted the same opportunities as the rest of the nation.

Even so, he said the system they were hoping to bring into the area was already obsolete. A further hurdle to the project was the community's desire to have the telephone lines buried, rather than use above-ground poles. While the region's previous telephone provider had required underground lines for all new connections, the current provider viewed buried lines as an extra and asked residents to pay the cost differential. Mr. Rashall said the community was willing to pay, but still had questions regarding the engineering work and the associated expense, which prolonged the process.

Mr. Rashall said Whale Gulch had expected to have its line extension in place by the end of 1999, but the project had yet to be completed. He expressed concerns that yet again the region was about to change telephone providers, potentially requiring the community to renegotiate its way through a new bureaucratic structure to see the project through.

Creative financing at work
Ms. JUDY HARRISON-NELSON, *Humboldt Economic Development Coordinator*

As Economic Development Coordinator for the County of Humboldt, Judy Harrison-Nelson was instrumental in helping bring telephones to a remote community in southern Humboldt County called the Larabee Valley. In describing her work, Ms. Harrison-Nelson credited Pacific Bell representative Dave Edmonds and the United States Department of Agriculture's Rural Development office for their flexibility and willingness to coordinate funding for the difficult project.

Ms. Harrison-Nelson described the Larabee Valley as a remote region with 45 households and several businesses. Residents had historically been served by radio phones, which she explained provided unreliable service. Cellular service was not available in the region. She said even law enforcement officials found themselves beyond radio contact in some parts of the region, making conditions unsafe for everyone.

Ms. Harrison-Nelson said the community effort to improve phone service in the region was immense. She described how a tiny home-based business – Simmons Handcrafted Soaps – originally relied on radio telephones for its orders. The addition of hard wire telephone service has allowed the company to add employees and to expand business opportunities.

The residents of Larabee Valley worked for 20 years to bring telephone service to the area, and when Ms. Harrison-Nelson obtained the Larabee Valley file, it had been dormant within her department for some time. She explained that by working with the county, Larabee Valley was awarded $80,000 in US Rural Development block grant funds. Pacific Bell contributed an in-kind match to complete the job of installing telephone poles and wires to the isolated community.

Ms. Harrison-Nelson credited the resourcefulness of the Larabee Valley residents and their vision of a prosperous future for the success of the project.

Industry perspective: Serving rural communities

Industry perspective: Serving rural communities
Mr. DAVE EDMONDS, *Pacific Telesis External Affairs*

Mr. Edmonds said rural telephone customers faced similar problems throughout the North Coast region. As director of external affairs for the region, Mr. Edmonds said North Coast communities are uniquely affected by the lack of economic opportunities caused by the disappearance of the traditional resource-based economy. He said area residents were concerned with stopping the "brain drain" that led many capable residents to flee the area for better employment opportunities in other parts of the state.

Mr. Edmonds stated Pacific Bell's ongoing commitment to serving area residents. He noted successful partnerships that had helped to carry telecommunications services into formerly unserved areas. Those collaborations included an agreement between Humboldt State University and the Yurok tribe, the Larabee Valley's innovative use of federal block grant funding to meet the residents' share of costs, as well as Pacific Bell's ongoing negotiations with the North Coast Railroad Authority and the Skunk Train in Mendocino and Humboldt Counties for right-of-way access to lay fiber optic cable.

His company was working to enhance services in the region through its community enrichment activities. Those activities included $25,000 in grants to improve basic telephone service, school and community enrichment grants, a grant to Humboldt State University for promotion of technology business development centers, or industry clusters, as well as community partnership grants to improve community access to telecommunications infrastructure.

Mr. Edmonds summarized needed changes to the regulatory system under which telecommunications providers must operate. He said an updated PUC tariff, with updated exchange boundaries would better serve customers and allow for competition. He said the use of microwave technology must be studied to determine its definitive effects, including establishing the best models for deploying technology to the highest advantage. Local governments could help expand services, he added, through organizing and opening a dialogue with telecommunications officials. In addition, highway right-away must be made available for telephone providers to install fiber-optic lines.

Mr. Edmonds urged communities to become proactive and to take advantage of the grants and funding opportunities that were available. He added that having an adequate telecommunications infrastructure was key to a community's economic growth.

The small telecommunications provider
Mr. BARRY ROSS, *California Telephone Association*

As the representative of a coalition of small telecommunications providers, Mr. Ross said small companies had a strong commitment to provide universal service to all customers. He explained that service areas for each provider were well defined by the PUC tariff act, which established terms and conditions for telecommunications service. He said the tariffs were sometimes unreasonable in imposing costs on customers seeking telephone service. Mr. Ross said infrastructure costs for companies providing service to certain remote areas could be as high as $1,200 or $1,300 a year.

Those costs were defrayed in part, by state programs such as the Universal Lifeline program and the High Cost Funds A and B, which help support industry's service to low income residents. Another program that exists to help promote the availability of telecommunications service is the U.S. Department of Agriculture's Rural Utilities Service. He suggested that the Legislature could establish a grant program utilizing interest earned on the PUC's Universal Service and high cost funds.

He said each of the funds might earn as much as $1.5 million in annual interest, which could be used to build infrastructure in unserved communities. Communities that were successful in winning grant funds would be able to build their own telecommunications infrastructure, then put the contract for a service provider out to bid.

Quality service to rural customers
Mr. KURT RASMUSSEN, *GTE*

Mr. Rasmussen, representing General Telephone and Electric, said he believed the Bureau of State Audits accurately depicted the state of telecommunications in rural California. He said GTE provided service to many rural communities with fully digital switching equipment, yet not all services were available to all customers, whether urban or rural.

Mr. Rasmussen explained that services were introduced to urban areas first, then generally would be expanded outward as rates decreased and demand rose. He noted that communities must first identify their demands and convey them to their telecommunications provider. Telephone companies often have no other way to know what level of services communities may need or desire. He said that community demand must be promoted in order for service to expand.

Changing service providers
Mr. LEE PAXTON, *Citizens Communications*

Mr. Paxton explained that Citizens Communications' (Citizens) application for purchase of GTE's service area and infrastructure was currently under consideration by the PUC, and that approval was expected in March 2000. On that schedule, he said Citizens expected to begin providing service that summer. Citizens would first hold informational community meetings throughout the region and had no plans to change rates or services, since Citizens is held to the same tariffs as GTE.

Mr. Paxton said Citizens was interested in hearing area customers' needs. He said the company enjoyed providing service to rural communities, and was currently purchasing telecommunications infrastructure of another provider, U.S. West, as well. He commented that unserved customers were a concern to the company, but said that line extension charges were prohibitive. He recommended the Legislature ask the PUC to review line extension charges during its meetings in 2000.

Internet access and infrastructure: The digital divide

Infrastructure and opportunity
Mr. DUANE SHERMAN, Sr., *Hoopa Tribal Chair*

As chairman of Humboldt County's Hoopa Tribe, Mr. Sherman described the hopes and limitations his community faced in accessing new telecommunications technologies.

The Hoopa Tribe is a sovereign nation, located along the Trinity River in eastern Humboldt County. The area is accessible by a winding, two-lane mountain road, posing an enormous challenge to further telecommunications infrastructure development.

With service from four Internet service providers, Hoopa had started several years earlier to explore options for infrastructure development, including fiber optics and T-1 landlines. Local cellular service was available, made possible through a central omni antenna and a central transmitter, but the service covered only the Hoopa Valley area. He said accessing wireless service from outside providers was impossible because of the area's geography, and even the existing land line service was often disabled during winter weather.

Mr. Sherman said only a small percentage of local school children had home computers, and only half had telephones in their homes. Through a partnership grant the elementary school had obtained computer equipment, but much of the educational value, for such things as classroom research and teacher education, was available only over the Internet. The lack of telecommunications infrastructure prevented Hoopa from benefiting from these technologies.

Remote locations are left out when it comes to many current technologies, he said. Under federal law, remote rural communities like Hoopa must file waivers to access local programming over television satellites, while larger communities aren't required to do so. Funding for infrastructure should be available to any community, regardless of location and population. Mr. Sherman explained that however remote, his community was a central location for services in the region, providing emergency and court services for a region extending beyond the boundaries of tribal lands. He said Hoopa wanted and deserved the same access to technologies and programs that any larger community would have.

Bringing the Internet to rural communities
Mr. TED PATTERSON, *Elk Valley Rancheria*

Mr. Patterson spoke about the Elk Valley Tribe's work to provide Internet to customers from Crescent City to Astoria, Oregon. The Elk Valley tribal lands are located within several miles of the Del Norte County
seat of Crescent City.

The Tribe had purchased Harborside ISP three months earlier and was exploring the possibility of expanding into wireless service. The company had recently secured a $500,000 grant to study telecommunications needs in Tilamook, Oregon. Mr. Patterson said the entire community could have been wired for Internet for that amount of money.

Mr. Patterson said the problem of opening Internet access to remote communities was not due to inadequate technologies, but was rather an issue of affordability. T-1 line technology was easily installed to any customer able to afford it. Wireless technology was more complicated, with transmission towers requiring line-of-sight to the customers. Without direct line-of-sight, repeaters must be installed at a cost of between $6,000 to $8,000 each.

Education and the Internet
Ms. SHARON DYER, *Campus Vice President, College of the Redwoods*

Ms. Dyer said the single T-1 line in use at College of the Redwoods' Del Norte Campus was not adequate. She said current education and training opportunities were dependent upon access to new technologies. With a focus on training workers to eliminate welfare dependence in the area, Ms. Dyer said prospective employees must be fully trained in the newest technologies.

College of the Redwoods (CR) utilized the Internet in teaching computer courses, to provide research access, for networking, and for graphics. CR's role in the county's economic revitalization was crucial, making expansion of the college's access to technology essential. CR had plans for a course in "E-Commerce" for the Fall 2000 semester and had recently entered into a contract to provide job training services through the local Rural Human Service agency. CR was also involved in a cooperative plan with the local school district to build, maintain and utilize computers. The college's computers were used to help local businesses and for general educational research. The system was also integral to faculty-to-student communications and for access, over the T-1 fiber optic line, to interactive courses offered at other locations. The college also conducted much of its own business via Internet.

Ms. Dyer said the College of the Redwood's T-1 line was in continual use, with one-quarter of its capacity devoted to data transmission, one-quarter to telephone communications and the remaining half to video transmission. She said the heavy usage made information transmission very slow. She said at a cost of $1,800 a month, the T-1 line was able to handle only one video course at a time. Ms. Dyer said in only two years the line had basically become obsolete.

Education in a region like Del Norte was dependent upon the Internet, Ms. Dyer said. She said residents' only access to the latest information and to a four-year degree was over the Internet. She said access to equitable, low cost technology was a right of all people in order to help them keep pace with a changing economy.

Returning people to the workplace
Ms. Tracey Placedo*, Del Norte Welfare to Work program*

Ms. Placedo described how Del Norte County's Welfare to Work program utilizes the Internet to move people off of Welfare and into gainful employment. The program trained recipients to provide Internet help service for a national firm called Nethelp International. The successful program was now training its third class of recipients, with the two earlier groups having moved through the training and into jobs with the firm's local call center.

Del Norte County's goal was to move 700 people off of Welfare. Ms. Placedo said through the Nethelp training program, that load would be reduced by 100 within one year.

Bringing economic opportunity to rural communities
Mr. MIKE McKENZIE-BAHR, *Economic Development Coordinator, Del Norte County*

Mr. McKenzie-Bahr said rural communities were anxious "to participate in the 21st century," and access to technology was the key. Del Norte had successfully recruited Nethelp, an Internet help service provider, and the county supervisors were committed to further development of technology businesses.

He said his community was planning a "smart block" technology area where technology businesses could be developed. Del Norte County was applying for grant funding for the project, which Mr. McKenzie-Bahr said could provide development opportunities for new technology businesses looking for available land and a ready workforce. With the shortage of workers in Silicon Valley, Mr. McKenzie-Bahr said the high tech industry is moving one business per day to a foreign country. Instead, he said, those businesses should be relocating to rural areas.

In a recent survey of the best rural areas to relocate to, Mr. McKenzie-Bahr said Del Norte County was ranked third, following Mendocino (second) and Humboldt (first) for their natural amenities. In contrast, he said the bad news for Del Norte county was its sketchy, microwave-based telephone service. He expressed concern that the proposed sale of local phone equipment from GTE to Citizens Communications could make completion of some basic services difficult for residents, and added that the lack of phone competition also detracted from the area. Two services provided "voice-over" technology locally, but with one long distance provider serving the area, long distance rates were not competitive. Nethelp's monthly bill to provide Internet help from Del Norte County was approximately $50,000.

Mr. McKenzie-Bahr said cell phone service was also inadequate in Del Norte County. While cellular service might be appropriate for development in southern California, in the mountainous north state, land lines were the most efficient way to provide service. He concluded that throughout the nation, new technologies were shrinking economies of scale. He urged the committees to work toward expanding those benefits to rural areas as well.

Industry perspective: Narrowband and broadband access

Narrowband and broadband access
Mr. MICHAEL CLINE*, Century Communications, Ukiah*

As general manager of the Century Communications in Ukiah, Mr. Cline discussed the range of services his firm was providing in Mendocino County. Mr. Cline said Century offered digital telephone and paging service, and that expanded bandwidth offered via Century's cable system was attracting new businesses to the area.

Mr. Cline outlined the challenges technology providers face in rural areas. The cost of delivering services to rural residents was often prohibitive, with providers estimating service costs based on an average of about 30 homes per mile. With construction costing the same or higher than in urban areas, many companies would see no benefit to entering the rural marketplace.

Economic demographics also played a role in delivery of new technologies. Mendocino County's population grew only 3% between 1990 and 1998, indicating the number of new jobs would also be limited. He said the area's low wage base – with 11% of the workforce earning less than $10,000 per year, 19% earning between $10,000 and $20,000, and approximately 32% living at or below the poverty level – meant that few residents could afford the new technologies that might be available to them.

A third challenge for providers was gaining access to existing infrastructure. Current high-speed technologies could be effectively transmitted over utility poles, but competitors have the ability to limit access by charging rent for the space. Along with the rental expense, utility pole owners require a series of permits and approvals that include permission from competing companies. Mr. Cline said these requirements could easily stifle any competition and there was no way to guarantee the approvals would be granted in a timely manner.

Mr. Cline said that cable providers were committed to creating a robust marketplace, but he expressed concerns that the anti-competitive nature of the infrastructure problems were working to defeat the intent of the 1996 Federal Telecommunications Act.

Expanding narrowband and broadband access in the north state
Mr. BOB PIERCE, *Falcon Communications*

Mr. Pierce announced his firm had just been purchased by Charter Communications, the fourth largest cable operator in the nation. He said Charter was very interested in providing Internet and advanced technologies, and would continue with the current rebuilding of the cable bandwidth system in order to provide two-way customer access.

Mr. Pierce described the system as a combination of microwave repeaters connected via a fiber link to the cable server. He said Charter's first addition of service would be to add expanded digital service to the Crescent City area, with cable Internet planned after that. Mr. Pierce said Charter's "Pipeline" would provide service at 100 times the speed now available over a 56K modem line.

Charter planned to serve all of Del Norte County except for the community of Klamath, in the southern part of the county. Mr. Pierce explained that fiber optic cable had been installed to the mountain communities of Gasquet and Hiouchi, and the firm was now rebuilding infrastructure along the Smith River, at the community of Smith River and Fort Dick, at the northern edge of the county.

Charter had 120 miles of fiber optic cable in place in Del Norte County, and Mr. Pierce said the company planned to add another 60 miles in completing the rebuilding of Del Norte's system. He said Charter's long-range plan was to lay fiber optic cable to connect Del Norte County to the Highway 101 corridor to the south, guaranteeing system stability in the event of storms and other natural disasters.

Conclusions and Recommendations

Conclusions and Recommendations

Assemblymember Strom-Martin believes access to telecommunications is an essential component of economic revitalization in rural communities. From the experiences described by her constituents in this report, it is clear that the demand for improved telecommunications access is great, and the need exists in many other parts of rural California as well. What also appears clear is a general interest on the part of telecommunications providers to deliver the services rural constituents want and need. With these two parts of the equation in place, the only missing components appear to be financing and regulatory support. The State has every reason to help in both of these areas. The development of a rural technology infrastructure will have far-reaching benefits, and the State must take a leadership role to see that rural California is not left behind.

Expanded Internet capability increases a community's access to both business and educational opportunities. As the rural economy grows, welfare dependence will diminish and personal incomes will climb. The contributions of rural entrepreneurs will enhance the state's business climate, expanding competition and diversifying the marketplace. Providers will benefit from the addition of new customers and the growing demand for new technology.

In order to promote a healthy economic climate for all its residents, the State should support development of the rural technology infrastructure.

- The State must make a commitment to bring fully updated telecommunications equipment to all of California by the year 2010.
- State policies should guarantee that residents would not be excluded from consideration for service because of where they live or their income level.
- Special financing must be made available to help communities access current technologies, and communities without basic telephone service should be given priority for infrastructure grants.
- Proposals to devote state highway and rail right-of-way access for fiber optic cable must be explored and acted upon.

The state's regulatory structure must be re-examined to make sure the system does not limit rural customers' access, whether through costly fees or through restrictive boundary exchanges that dictate who can and who can't receive telecommunications service from which provider.

- The PUC must also help communities identify alternative funding sources for telecommunications infrastructure projects, and should work to promote collaboration between community leaders, local governments, and telecommunications providers.
- The PUC must thoroughly evaluate the potential impacts of rate de-averaging on rural customers before de-averaging is implemented.

Rural residents want to be involved in the decisions that affect their homes and their livelihoods.

- The State must promote a more open dialogue between telecommunications providers and rural communities and must help providers to develop greater expertise in the unique problems of serving rural areas.
- Providers must make their corporate bureaucracies more user-friendly, providing community liaisons to work with communities seeking telecommunications improvements or those faced with provider-imposed changes.
- Telecommunications providers might consider becoming active in rural economic development organizations in order to be better informed about the increasing role of telecommunications in the rural economy.
- A rural liaison position within the PUC might facilitate these developments, helping to bridge the gap between community concerns and corporate practices.

With de-regulation of the telecommunications industry, the State has relinquished much of its control over how Californians receive telecommunications services. De-regulation, however, does not mean the State need not be involved in this area. This new deregulated scheme means the PUC now has the opportunity to assume a new role as champion of the consumer, enacting bold new initiatives that will protect the public's right to equitable utility service.

- The PUC should increase incentives for providers to expand their services into rural areas, and providers should be rewarded for introducing new infrastructure into unserved areas and for expanding technology access into rural areas.
- The PUC must make changes in the Universal Lifeline program, devoting a portion of the Universal Lifeline Fund and the PUC's High Cost Funds A and B to providing telecommunications services into unserved communities. (In February 2000 Assemblymember Strom-Martin introduced AB 1825, that would use the interest earned on these funds for rural telecommunications infrastructure grants.)
- In order to make sound decisions on telecommunications issues, the Commission must take responsibility for collecting and maintaining data on basic telecommunications service costs and on the numbers of unserved and underserved Californians.

As California begins this new 21st Century, the perceptions of economic prosperity and opportunity must be made reality for everyone. The Legislature has the means to direct this "sea change" by promoting programs and policies that will expand telecommunications access to those who need it the most.

Appendix

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Assembly
California Legislature

RODERICK D. WRIGHT
ASSEMBLYMAN, FORTY-EIGHTH DISTRICT

CHAIR:
UTILITIES AND COMMERCE
SELECT COMMITTEE
ON EXPOSITION PARK

COMMITTEES:
APPROPRIATIONS
BUDGET
BUDGET SUBCOMMITTEE NO. 4:
STATE ADMINISTRATION
GOVERNMENTAL ORGANIZATION
SELECT COMMITTEE ON
CALIFORNIA WINE
SELECT COMMITTEE ON
CALIFORNIA HORSE RACING
INDUSTRY
SELECT COMMITTEE ON
JOBS-HOUSING BALANCE
SELECT COMMITTEE ON
RURAL ECONOMIC
DEVELOPMENT
JOINT LEGISLATIVE BUDGET
COMMITTEE
JOINT TASK FORCE ON
WORKFORCE INVESTMENT

Telephone infrastructure funding in rural areas.
Assembly Utilities and Commerce Committee

At the Joint Hearing on Rural Telecommunications Issues, the problems faced by rural communities in securing hard-line based telephone communications were detailed. A recent report by the State Auditor estimated that 112,000 people in California, who constitute three percent of the rural population, live in areas where traditional phone service is not offered. Although residents of rural communities have access to technology such as radiophones or cellular service, geographical terrain or inclement weather can limit the effectiveness of these solutions. Because of these limitations residents of rural areas see traditional hard-line telephone service as a necessity to maintain contact with the outside world.

Despite this need for traditional telephone service, barriers exist that limit the ability of rural communities to secure it. At the heart of these barriers is the lack of basic infrastructure such as telephone lines that allow not only telephone service but rudimentary Internet access. Investment in this type of infrastructure can be prohibitively expensive, sometimes running in the tens of thousands of dollars. In this era of increasing competition and deregulation in the telecommunications sector, communities are finding that they must bear the cost of this construction themselves. Therefore understanding the options available to assist with this investment becomes more important than ever. Towards that end, this paper will detail a few of the options open to communities in taking the first step in developing infrastructure and access to basic telecommunications services. All of these options entail the community working with a local telephone provider to get the best deal for their residents who want telecommunications services.

I. Statement of the Problem.

For residents in rural areas of the state without access to hard-line telecommunications services, the local phone company will run an extension from an existing telephone line to their home or business. The person or business requesting the line assumes charges for line extensions. Rates in California include a certain amount of free footage. Usually the firs[redacted] 1000 feet of line extension is constructed by the company without charge. Charges after that first section run anywhere from $1.00 to $1.75 per foot. For example, GTE California will construct at its own expense a maximum of 700 feet of line extension and/or a maximum of 300 feet of service connection per applicant at no charge. The cost of the next 100 feet or fraction

thereof of line extension is $175, and after that the cost runs $1.75 per each additional foot. These costs add up quickly. The applicant requesting the line extension can also furnish and set the poles and the utility will provide and install the cable and fixtures at their own expense. Ownership of the equipment, even when the applicant installs it, reverts to the utility, who then becomes responsible for maintenance of the infrastructure. The costs for the equipment are assessed based on the number of people that will be served. In other words, the more people that will be served by a line extension, the lower the cost per person.

Normally, utility companies require the estimated total cost be paid prior to groundbreaking. If new applicants are added to the project within three years the charges are recomputed so that the new applicant pays a portion of the charge based on the number of months remaining within the three years. Thus new applicants to a project are not charged the full amount for connection to the extension and existing customers are refunded a portion of the original charges.

II. Options for Rural Residents.

There are two options open to rural residents facing high infrastructure costs for establishing hard-line telephone service. They are:

- Issuing bonds and raising other types of revenues such as special taxes or assessment through the county or by forming an assessment or special district;
- Seeking external financing through state or federal programs in the form of loans and/or grants.

Each of these financing options has advantages and disadvantages for rural communities. A third option, rural telephone cooperatives, is also considered. The merits of each of these solutions are considered below.

The first option open to communities is to borrow the money by issuing bonds or alternatively operating on a pay-as-you-go basis through either special taxes or assessments. Bonds can be issued by counties through special assessment districts such as County Service Areas or Community Services Districts, as well under the Improvement Bond Act of 1915. The advantage is that the bond payments can be stretched out over a period of years that would allow the per person cost to be lower than if individuals tried to secure the costs themselves. A disadvantage is that bonds can be expensive to issue, especially for a small municipality who won't be floating a large bond offering. Additionally, local general obligation bonds need two-thirds approval of the voters in their districts before they can be issued. A disadvantage of working through a special district such as a Community Services Districts or County Service Areas is that neither of those entities have the statutory ability to provide for the construction of telephone infrastructure such as line extensions. That deficiency would have to be addressed with legislation prior to using these vehicles to raise funds for telephone infrastructure construction.

Another avenue open to communities is provided under the Mello-Roos Community Facilities Act of 1982. It provides an alternative method of financing certain public capital facilities and services, especially in developing areas. Communities can form a community facilities district to finance the construction of telephone lines to provide access to residents that do not already have access to telephone services. Community facilities districts can issue bonds

and levy assessments and special taxes to pay for telephone lines and other infrastructure as needed.

Assessments levied on property owners in a district must be passed with a majority the district's property owners. Their vote is weighted based on the amount of the assessment levied against their property. Pay-as-you-go provides another option to finance the construction of line extensions for communities. The advantage is that it would be much cheaper for a community than issuing bonds both in terms of issuing cost and interest payments. For example, a county could provide the money up front for the construction and levy an assessment against the property benefited by the construction to pay itself back. This arrangement could also take the form of an assessment bond where the bond is paid for from assessments levied against the homes or businesses that benefit from the extension of telephone service.

The second option for establishing telephone infrastructure is securing a loan and/or grant through a state or federal agency. There are various programs set up to assist local governments in securing financing for infrastructure. At the state level, the California Trade and Commerce Agency offers communities assistance through the California Infrastructure and Economic Development Bank. As of the end of December 1999, the Bank had begun accepting pre-applications for loans. Loans will be made on a two-tier basis to local government entities. Tier 1 loans are for amounts between $250,000 to $20 million. Loans will be awarded based on scoring criteria that includes project impact, location of projects in communities experiencing economic distress, projects consistent with the land use priorities outlined in the State's Environmental Goals and Policy Report, projects that promote the protection or improvement of the environment and projects located in a jurisdiction with an approved General Plan Housing Element, projects that can readily commence construction, and projects that leverage other funding sources. Tier 2 loans will be available for projects expected to meet Tier 1 criteria within three years. In addition, the Bank will offer technical assistance in financing local infrastructure investment.

The California Trade and Commerce Agency also offers a program designed to provide low-cost financing for the construction, improvement or expansion of public infrastructure necessary to create or retain permanent, private sector jobs. The Rural Economic Development Infrastructure Program allows public agencies or special districts within the boundaries of eligible counties to borrow up to $1 million over 20 years at interest rates comparable to California General Obligation bonds payable through leases, enterprise funds, or tax increment funds. The program requires proof that full-time permanent jobs were created or retained due to the loan.

At the federal level, the United State Department of Agriculture offers loan programs for telephone infrastructure construction and improvement. One of those programs is the Rural Utilities Service Telecommunications Program. It provides funds to incorporated commercial or nonprofit corporations such as rural telephone cooperatives providing or proposing to provide local telecommunications service to rural areas, but not to the communities themselves. The Rural Utilities Service also offers loan and grant combinations under its Distance Learning and Telemedicine Program for acquiring facilities that provide enhanced learning and health care

opportunities for rural residents, which include telecommunications transmission facilities provided that no facilities currently exist.

Another solution that has proved popular in other states is rural telephone cooperatives. Rural cooperatives are consumer-owned businesses that provide services similar to investor-owned utilities. Members invest in shares in the business to provide capital for the purchase of facilities and operations. In other states, telephone cooperatives provide their subscribers with telephone service along with Internet and advanced telecommunications capabilities, usually in territories where no other carrier has applied to provide service. Cooperatives are eligible for low-interest loans from federal programs such as the Rural Utilities Service Telecommunications Program.

California currently has no rural cooperatives providing telephone services. This is principally due to difficulties new service providers face in breaking into filed telephone service territories. As regulation now stands, if a cooperative attempts to establish service in a territory already assigned to another telephone company, it would have to file with the California Public Utilities Commission as a competitive local exchange carrier. The organization then has a much more difficult time qualifying for low-interest loans normally available to telephone cooperatives, especially if the cooperative would be duplicating services already offered to some of the households in that territory. Additionally, telephone cooperatives would have to negotiate interconnection agreements with incumbent telephone companies to be able to utilize network and switching equipment already in place. We are prepared to pursue either regulation or legislative relief that would allow communities to form telephone cooperatives if there is sufficient interest on their part.

While the problems faced by rural communities in providing hard-line telephone services to its most isolated residents can require costly action to remedy on an individual basis, there are options available to those communities to secure the needed funding. Please don't hesitate to contact my office at (916) 319-2048 if you require assistance with anything discussed in this report.

Organizations and Contacts

What follows is a list of the organizations and agencies discussed in this report and their addresses and phone numbers.

California Public Utilities Commission
540 Van Ness Ave.
San Francisco, CA 94102
(415) 703-2782
Web address: http://www.cpuc.ca.gov/

California Trade and Commerce Agency
801 K Street, Suite 1918
Sacramento, CA 95814
(916) 322-1394
Web address: http://commerce.ca.gov/index.html

United States Department of Agriculture
Rural Utilities Service Telecommunications Program
Room 2808, South Bldg., Stop 1597
Washington, DC 20250
(202) 720-0800
Web address: http://www.usda.gov/rus/

NORTHERN CALIFORNIA
COUNTY SUPERVISORS ASSOCIATION

P.O. Box 53, Palo Cedro, CA 96073
PHONE/FAX: (530) 221-1191 E-MAIL phylc@snowcrest.net

September 17, 1999

The Honorable Virginia Strom-Martin
Chairman, Rural Economic Development Select Committee
State Capitol, Room 3146
Sacramento, CA

Dear Assemblywoman Strom-Martin:

At their meeting on September 10th the NorCal County Supervisors Association Board of Directors voted unanimously to support your efforts to improve telephone service in rural counties.

Trinity County Supervisor Reiss emphasized that all of northern California is under-served when it comes to telecommunications. This situation is intensified by the small populations and the terrain where mountain ranges make provision of hard-line phones difficult. Also emergency services need reliable communication and lack of phone service has hindered their effectiveness and even resulted in loss of life.

Phone companies are concerned with the cost of providing services in rural areas, but a phone is no longer considered a luxury item. Indeed, it can provide an economic boost to rural areas by making access to electronic communication available.

As a group representing mostly rural communities, we support your pursuit of information which will provide an impetus to improve telephone service in all rural counties.

Very truly yours,

Phil Bresciani, President

cc: Assemblyman Dick Dickerson

TELECOMMUNICATIONS CONFERENCE
VIRGINIA STROM MARTIN
NOVEMBER 29,1999

Charter Communications closed the sale of Falcon Communications on 11-12-99. The name change will happen some time after the first of the year.

Charter is the fourth largest cable company in the United States and is owned by Paul Allen which was the cofounder of Microsoft with Bill Gates. Paul Allen has a concept of a wired world.

Charter will service their cable television subscribers under the Charter name and their high speed Internet subs under Charter Pipeline. This is the same type service as Excite At Home. The advanced digital service will be under Charter Digital Cable. Charter also has a Charter Paging Service. Charter at some point is planning to sell local telephone service over the cable.

Charter has a corporate office in St. Louis Mo.
A Regional office is being set up in Portland Or. for Oregon and Washington, and a District office in Medford Or.

The Crescent City system rebuild is completed and is built to 750 MHz. The Del Norte County portion is about 60% complete. The City portion of the system will have two way modules placed after the first of the year so the system will be two way capable. This will allow us to sell Internet Service on the cable system both forward and reverse.

The system has two head-ends one at Washington St. which is a pick up point for the local and microwave channels from Eureka and Medford and a main head-end off Ocean View Dr. in Smith River. Both facilities have stand by power. The head-ends are tied together with a fiber link for transportation of signals.

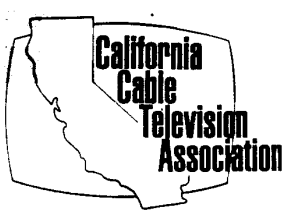
Digital service will be the first added service to the areas rebuilt. There will be 17 slots available for the digital package, which is now compressed 11 to 1. Internet service will be added next, Charter

Pipeline is about 100 times faster than a 56 K modem line. The Internet service will be a forward and reverse system on the cable.

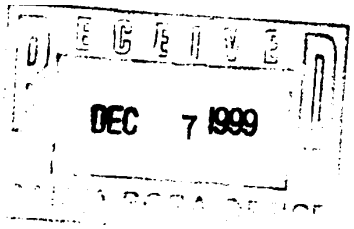
The areas serviced by Charter will cover all of Del Norte County except Klamath. Placing a fiber cable to feed Gasquet and Hiouchi has eliminated the Head end in Gasquet. The areas not yet rebuilt in Del Norte County are the North and South Bank of the Smith River below the golf course, the area around Smith River, and the Fort Dick area.

Charter has 120n miles of fiber in use serving Del Norte and Curry Counties. An additional 60 miles will be placed to complete the rebuild in the area. There is 250 miles of plant now serving Del Norte County.

The long-range plan is to tie the 101 corridor together with fiber from Crescent City North, which will make the head-ends redundant in case of outages from storms and other disasters.



Carol



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November 30, 1999

Honorable Virginia Strom-Martin
California State Assembly A- 1
50 D Street, Suite 450
Santa Rosa, CA 95404

Dear Assemblywoman Strom-Martin:

Recently you have heard a great deal about the deployment of High Speed Internet Access over the cable systems in California and throughout the nation.

High-speed cable issues have received extensive review by the Federal Communications Commission, (FCC), the California Assembly Utilities Committee, and over 170 cities throughout California. In virtually every jurisdiction regulators and elected officials have supported the immediate roll-out of high speed (Broadband) Internet service to consumers – without added regulations or restrictions.

Following the lead of AT&T, Cox Cable and Media One, cable companies throughout California are making an unprecedented investment in broadband services to the homes, businesses, schools and libraries.

The cable industry and its newest partner, AT&T, believe – and the marketplace clearly demonstrates - that competition is working. Broadband deployment is growing. Prices are falling. Choice is beginning to develop. And consumers are or soon will be reaping the benefits.

Competition is forcing everyone in the broadband industry to increase service while lowering prices. Already, SBC/Pac Bell has announced it will accelerate the roll-out of high-speed Internet services to compete with cable television providers. And earlier this year, SBC/Pac Bell slashed its high-speed Internet fees in California from $89.95 to $39.95 per month to match cable modem pricing.

All across the country, from Los Angeles to Denver, San Francisco to St. Louis County, and across California, local governments are recognizing the way competition is creating the broadband marketplace and benefiting consumers with more choices and lower prices. Consider the following:

- In Los Angeles, the City's Information Technology Agency found that a "wait and see" approach to Internet regulation is best for consumers. According to their report, "By fostering a truly competitive atmosphere, the Agency expects that prices will drop, infrastructure will be improved and consumers will be better served..." (LAITA Report, July 18, 1999)

- The Chairman of the Federal Communications Commission has stated clearly that: "Fundamentally we have to recognize that our job is not to serve the interests of companies, but to serve the interests of consumers. And we've found that with a lot of technology, it's moving very fast, and sometimes the best thing government can do is understand it, but make a conscious decision to get out of the way and let it develop." (CNET, October 11, 1999)

AT&T alone is poised to invest over $15 billion into system upgrades in California. When added to the investments of the state's other cable companies, it is clear that we are on the verge of making California a world class center for the Digital Information Age.

Further, we think California consumers deserve a real choice in local phone service. Consumers deserve access to high-speed Internet and enhanced cable television. And they deserve the best services at the fairest price. High Speed Internet Services – free from unnecessary regulation – can provide just that. FCC chairman William Kennard underscores this point in the enclosed *San Francisco Chronicle* piece, which articulates why this matter is best addressed at the federal level. Should you be approached to consider state legislation in this area, please call us.

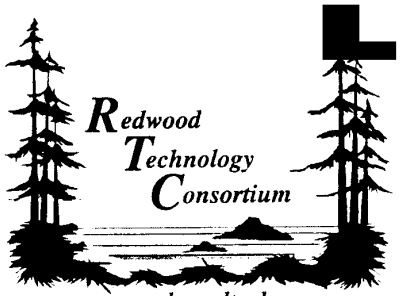
Thank you for your ongoing attention to this important issue. We will be providing you with several updates in the coming weeks and look forward to working closely with you throughout 2000.

Sincerely,

Dennis Mangers

William H. Devine

Enclosure



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February 28, 2000

Honorable Virginia Strom-Martin
Assemblymember - First District
P. O. Box 942849
Sacramento, CA 94249-0001

Dear Assemblymember Strom-Martin:

These comments are submitted for your consideration on the topic of rural telecommunications. I am a technology company owner and president of the Redwood Technology Consortium (RTC), a trade industry group representing technology companies and related developments on the North Coast (primarily Humboldt and Del Norte Counties). We have a keen interest in this topic and urge you to consider our views in any legislative action.

Several tech companies have been established and thrive on the North Coast. However, this is only a small representation compared to the potential of technology-based economic development that is possible. Please see our position paper on this topic at the RTC Website (www.redwoodtech.org). The technologies these companies use and hope to foster locally are in no way to be confused with typical industrial development and manufacturing. Unlike producers of durable goods that rely upon natural resources, these companies are environmentally clean service providers and developers of intellectual property.

Rural isolation has long been a problem for traditional local businesses, local government, and community service providers. Our isolation has hindered our ability to gather information/learn about new developments in other regions, and our isolation has hindered our ability to effectively market ourselves to the outside world. Therefore, we have been slow to change and keep up with the changes happening in the broader context of business and commerce worldwide. Shipping goods and receiving supplies is always a significant portion of local export-based business expenses.

Technology based businesses require high-speed data networks and a robust telecommunications infrastructure that is not dominated by a single provider. Humboldt County telecommuters and "e-businesses" are currently very limited by both choice and capability of network access and service. The only plans for development on the horizon indicate a non-competitive environment, with minor improvement. In order to provide an adequate telecommunications infrastructure to support high-speed data access and network capacity, a digital, wireless network must be built. High-speed data lines (T1 and fiber optics) must be commercially available, preferably from multiple providers.

Building a telecommunications infrastructure will require long term funding commitments, but at a reduced cost and risk, and a higher return-on-investment compared to that required for improvement of the transportation infrastructure needed for other economic development efforts. Several funding options are available to Humboldt and Del Norte Counties to address these needs, including California telecommunications bond funding (already issued), federal rural telecommunications grants, utility, and commercial funding.

The RTC is prepared to work with public and private organizations to further these goals and encourage local job creation through capital investment in technology-based businesses on the North Coast. In the past, Humboldt County relied on its rich natural resources and beautiful location to create sufficient economic conditions to survive and thrive. We urge our public and private sector leaders to help us create these environmentally clean, living-wage jobs that are so desperately needed here in Humboldt County.

Thank you for the opportunity to comment on this important topic.

Sincerely,

Christopher Crawford

President, Redwood Technology Consortium

Owner - Justice Served
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Tel: 707-443-1900, FAX: 707-443-1906
Email: ccrawford@justiceserved.com
Internet: www.justiceserved.com

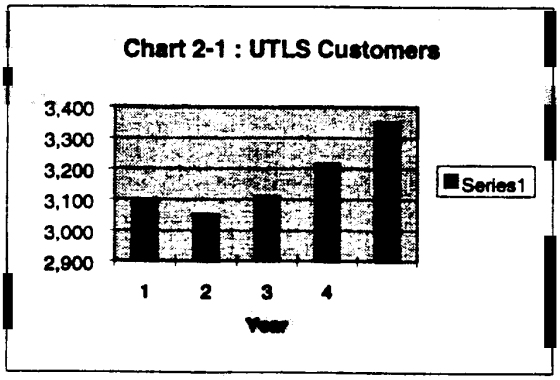
CHAPTER 2 PUBLIC PROGRAMS

I. Universal Lifeline Telephone Service

The Universal Lifeline Telephone Service (ULTS) program was established in 1984 (D.84-11-028) in compliance with PU Code § 871. This program provides discounted basic telephone services to low-income families for the purpose of ensuring basic telephone service is available and affordable to low-income citizens in the state. Since the inception of the program, the number of ULTS customers has grown steadily from 1 million in 1987 to 3.2 million today. Currently, ULTS services are provided by over 27 telecommunications carriers. The number of ULTS customers for years 1995 to 1997 and estimated for 1998 and 1999 are stated on Table 2-1 and graphed on Chart 2-1.

Table 2-1

Year	ULTS Customers (Thousands)
1995	3,100
1996	3,050
1997	3,109
1998	3,215
1999	3,350



A. Finances

When the Universal Lifeline Telephone Service (ULTS) program was established in 1984, it provided discounted residential telephone services to eligible low-income families at 50% of the regular rates charged by the telecommunications carriers. D.94-09-065 established state-wide ULTS discounted rates, i.e., $5.62 for residential flat rate service and $3.00 for residential measure rate service, irrespective of the regular rates charged by the telecommunications carriers. These rates are maintained today. Carriers

providing ULTS services receive reimbursements from the program for the differences between the residential rates charged to regular customers and discounted rates charged to ULTS customers plus administrative expenses.

The program was initially funded by a tax on intrastate interLATA telecommunications services. D.87-10-088 changed the funding source from a tax to a surcharge. D.94-09-065 expanded telecommunications services that are subject to surcharge to include all intrastate services except for the following:

1. discounted services under the ULTS program;
2. charges to other carriers for resale purposes;
3. public phone coin in box and telephone debit cards;
4. contracts effective before 9/15/94;
5. usage charges to coin operated pay telephones;
6. directory advertising; and
7. one-way radio paging.

Since 1987, the surcharge for the program has fluctuated from a high of 4.00% to a low of 0.00% adopted by the Commission in Resolution T-16245 to take effect on January 1, 1999. The surcharge is billed and collected by telecommunications carriers authorized to provide telecommunications services in California under PU Code § 234. They, in turn, remit the surcharge monies to the financial institution as directed by the Commission or its representatives. The surcharges for years 1995 to 1998 and adopted for 1999 are shown in Table 2-2.

Table 2-2

Year	Surcharges
1995	0.030
1996	0.032
1997	0.032
1998	0.024
1999	0.0

Table 2-3 below summarizes the program expenditures with costs broken down into program expenses and administrative expenses, and the applicable surcharge rates. The expenditures for 1995 through 1997 are based on actual recorded data, whereas, 1998 expenditures are based on actual recorded data from January 1998 to September 1998, annualized, and 1999 expenditures are approved budgeted amounts.

Table2-3
Universal Lifeline Telephone Service Program
($ in Millions)

	Program Expenses	Administrative Expenses	Total Expenses
1995 (Actual)	$318.1	$0.3	$318.4
1996 (Actual)	383.0	$0.3	$383.3
1997 (Actual)	396.0	$0.5	$396.5
1998 (Projected)	302.0	$0.8	$302.8
1999 (Budgeted)	212.0	$0.8	$212.8

The ULTS program expenses are projected to decrease in 1998 and 1999 because of the Federal Communications Commission's Lifeline program resulting in additional financial support for the state ULTS program. Consequently, a large portion of the ULTS program costs funded by UTLS surcharge is significantly reduced.

B. Administration

ULTS is administered by external committees: the ULTS Administrative Committee and the ULTS Marketing Board. (See D.87-10-088 and D.97-12-105) The ULTS Administrative Committee consists of five members with a representative from Pacific Bell, AT&T, California Telephone Association (CTA), and two members from community based organizations (CBO). The ULTS Administrative Committee currently employs a trustee to handle incoming and outgoing of funds, and full time external staff to handle the day-to-day activities of the program.

In 1997, the Commission established the ULTS Marketing Board and formally adopted a charter for the Board in August 1998 (Resolution T-16176). The ULTS Marketing Board is charged with the responsibilities to devise competitively neutral marketing strategies and to oversee the implementation of ULTS marketing campaigns. The ULTS Marketing Board currently consists of 9 members, with 3 vacancies yet to be filled. The 9 members are made up of 6 representatives from the telephone industry and 3 CBO members. The ULTS Marketing Board began its operations in January 1998 on an approved budget of approximately $5.0 million. This amount is included in the total ULTS budget.

C. Future Activities

The Universal Lifeline Telephone Service Marketing Board (ULTSMB) began its operations in January 1998. In 1999, the funding for the ULTSMB will be about $7.4 million. The ULTSMB has recently developed a request for proposal (RFP) for a market study of the ULTS demographics in California. The information resulting from this study will be used to develop permanent marketing campaigns and outreach programs for the

ULTS program. Pending completion of a market study, the ULTSMB has also developed an RFP and a contract to implement interim marketing campaigns in 1999 pursuant to D. 98-10-050. This interim market plan RFP solicits and will retain an advertising agency to aid the ULTS in developing and implementing a comprehensive and competitively neutral ULTS marketing program. The campaign is intended to inform, promote, and increase the awareness of the ULTS program, consistent with the goal of achieving a 95 percent telephone subscribership rate for all residential customer groups, particularly among qualified low income households in the state.

II. California High Cost Fund-A

The California High Cost Fund (CHCF) was created by D.88-07-022 and implemented by D.91-05-016, as modified by D.91-09-042. The CHCF was established in compliance with PU Code § 739.3 to provide a source of supplemental revenues to three mid-size and seventeen small LECs whose basic exchange access line service rates would otherwise be increased to levels that would threaten universal service. D.94-09-065 changed the name from CHCF to CHCF-A. D.96-10-066 created the California High Cost Fund B (CHCF-B) and included the three mid-size LECs in the CHCF-B for the purpose of determining universal service subsidy support, and maintained the CHCF-A for the 17 small LECs. The availability of the CHCF-A to the 17 small LECs continues today.

A. Finance

The California High Cost Fund-A (CHCF-A) was initially funded by an increment in Pacific's intrastate carrier common line charge (CCLC) and administered by Pacific. D.94-09-065 changed the funding source from an increment in the CCLC to an all end-user surcharge and reaffirmed Pacific as the administrator of the program. The surcharge is billed and collected by telecommunications carriers who then remit the surcharge monies to the administrator. Recognizing the special nature of the surcharge monies, Pacific set up a separate trust for the depository and as a custodian of the funds. The CHCF-A Trust received tax-exemption from the Internal Revenue Service as a 501 (c)(3) organization in 1996.

The program payments to the 17 small LECs, the administrative budget, and the appropriate surcharge rate for the funding of the program are reviewed on an annual basis and approved by the Commission through resolution(s). Table 2-4 below summarizes the program expenditures with costs broken down into program expenses and administrative expenses, and the applicable surcharge rates. The expenditures for 1996 and 1997 are based on actual recorded data, whereas, expenditures for 1998 are based on actual recorded data from January 1998 to September 1998, annualized, and expenditures for 1999 are approved budgeted amounts.

California High Cost Fund - A

The California High Cost Fund (CHCF) was created by California Public Utilities Commission in Decision 88-07-022 and implemented by Decision 91-05-016 as modified by Decision 91-09-042. The CHCF was established (in accordance with Public Utilities Code 739.3 which is scheduled to sunset on January 1, 2001) to provide a source of supplemental revenues to three mid-size and seventeen small Local Exchange telephone Carriers (LECs) whose basic exchange service rates would otherwise be increased to levels that would threaten universal service. Commission Decision 96-10-065 changed the name of the CHCF to CHCF-A. Commission Decision 96-10-066 created the California High Cost Fund B (CHCF-B) and included the three mid-size LECs in the CHCF-B for the purpose of determining a universal service subsidy support. The CHCF-A was reserved for the 17 small LECs.

The CHCF-A was initially funded by an increment in Pacific's intrastate carrier common line charg■ and administered by Pacific Bell. Commission Decision 94-09-065 changed the funding source to an all end user surcharge and reaffirmed Pacific Bell as the administrator of the program. The surcharge was billed and collected by telecommunications carriers who then remitted the surcharge monies to the administrator. A separate trust was set up for the deposit of the funds. In 1999, the Governor signed into law SB 669 which requires CHCF-A funds to be deposited into the State's Treasury. On or before July 1, 2000, a detailed report will be submitted to the Legislature and the Governor which will address a transition plan for the transfer of the funds to the State Treasury .

The CHCF-A was originally administered by Pacific Bell. On January 1, 1998, in accordance with Commission Decision 96-10-066. Commission staff took over administrative control of the fund. The CHCF-A fund is administered by the CHCF-A Administrative Committee which is comprised of three Commission staff members appointed by the Executive Director plus one non-voting liaison appointed by the Director of the Telecommunications Division. The Committee conducts its business in public meetings held approximately once a month. The program payments to the 17 small LECs, the administrative budget and the appropriate surcharge rate for the funding of the program are reviewed on an annual basis and approved by the full Commission through a resolution.

17 Small LECs:

Calaveras Telephone Company
Cal-Ore Telephone Company
Citizens Telecommunications Company Of The Golden State
Citizens Telecommunications Company Of Tuolumne
Ducor Telephone Company
Evans Telephone Company
Foresthill Telephone Company
GTE West Coast Incorporated
Happy Valley Telephone Company
Hornitos Telephone Company
Kerman Telephone Company
Pinnacles Telephone Company
The Ponderosa Telephone
Sierra Telephone Company
Siskiyou Telephone Company
The Volcano Telephone
Winterhaven Telephone Company

Excerpt taken from the Universal Service Handbook, California Public Utilities Commission, December 17, 1998.

For the Year 2000 the Commission has approved an administrative budget of $35,000 and a draw of $6,935,397 to the small LECs. The Commission has directed the CHCF-A Administrative Committee to pay the respective small LECs monthly installments in the amount indicated below:

Small LEC	Monthly Installment Amount	Total Year 2000 Draws
Cal-Ore	$24,194	$266,134
Citizens-Tu	$18,719	$205,911
Ducor	$21,221	$233,433
Sierra	$325,661	$3,582,273
Siskiyou	$26,420	$290,618
Ponderosa	$99,795	$1,097,749
Volcano	$114,480	$1,259,279
Total	$630,490	$6,935,397

Excerpt taken from the Universal Service Handbook, California Public Utilities Commission, December 17, 1998.